DOCUMENT RESUME

ED 390 209 EC 304 474

AUTHOR Reeves, June B.; And Others
TITLE Deaf Students as Visual Learners: Power for Improving Literacy and Communication.
INSTITUTION National Technical Inst. for the Deaf, Rochester, N. Y.
PUB DATE [Jul 95]
NOTE 11p.; Paper presented at the International Congress on Education of the Deaf (18th, Tel Aviv, Israel, July 16-20, 1995).
PUB TYPE Speeches/Conference Papers (150) -- Viewpoints (Opinion/Position Papers, Essays, etc.) (120)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS American Sign Language; *Cognitive Style; *Deafness; Elementary Secondary Education; *Grammar; *Language Acquisition; Literacy; Pronouns; Semantics; Syntax; Verbs; *Visual Learning

ABSTRACT

This paper stresses the concept of deaf students as visual learners. Educators are urged to think visually in order to help maximize opportunities for deaf students to use their visual learning skills in developing literacy skills, and in their general academic, social, and personal development. Examples are offered of structural/grammatical features of American Sign Language to show how this natural sign language uses space, sign movement, indexing, body shifts, eye gaze and facial expression, together with sign selection based on meaning, to provide clear visual communication for the following concepts and language structures: (1) appropriate pronoun usage/identification; (2) verb usage, with focus on active versus passive voice; (3) semantics/meaning of individual terms or phrases; and (4) dependent clause structures. (DB)

****
* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *
****

ED 390 209

Deaf Students as Visual Learners:

Power for Improving Literacy and Communication

June B. Reeves, Paula Wollenhaupt, and Frank Caccamise

National Technical Institute for the Deaf

Rochester Institute of Technology

June B. Reeves, M.S., is an Assistant Professor, Center for Sign Language and Interpreting Education, National Technical Institute for the Deaf (NTID), Rochester Institute of Technology (RIT), 52 Lomb Memorial Drive, Rochester, NY, 14623-5604. Paula Wollenhaupt, M.S., is an English Instructor, Center for Arts and Sciences, NTID, RIT. Frank Caccamise, Ph.D., is a Research Associate, Center for Research, Teaching, and Learning, NTID, RIT.

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.

PERMISSION TO REPRODUCE THIS MATERIAL HAS BEEN GRANTED BY

J. Reeves

TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC).

EC304494

Running Head: DEAF STUDENTS AS VISUAL LEARNERS

BEST COPY AVAILABLE

Abstract

This presentation/paper stresses the concept of deaf students as **visual learners**. Given this, emphasis is placed on the importance of educators **thinking visually** in order to help maximize opportunities for deaf students to use their **ability to see** in (a) developing their literacy skills, and (b) in their general academic, social, and personal development. Using examples from American Sign Language (ASL), features of natural sign languages are discussed that can assist teachers in creating/producing sign language messages that provide students who are deaf with both **clear visual access** to information and good language models.

Deaf Students as Visual Learners:

Power for Improving Literacy and Communication

The goal of this presentation/paper is to discuss how features of natural sign languages can assist teachers in creating visually effective sign messages that provide students who are deaf with both clear access to information and good language models. Why do natural sign languages, such as American Sign Language (ASL), help provide deaf students with clear access to information and language? Because natural sign languages have developed and evolved to effectively match the **ability** of people to access information **visually**. As Behan (1988, p. 1) stated, "American Sign Language was developed, not because deaf people can't hear, but because they can see."

Today, communication with deaf and hard-of-hearing students is a complex issue that involves a variety of language and modality choices. Whatever languages and modalities teachers use to communicate, two primary educational goals are: (a) to develop literacy in the written majority language; and (b) to enhance students' academic, social and personal development. Important to this second goal is the valuing of Deaf culture and acceptance of the natural sign languages of Deaf culture. The implications of Behan's statement for teachers that 'American Sign Language (ASL) developed because deaf people <u>can</u> see' becomes clear when focusing on these goals. Effective communication and instruction with students who are deaf requires that we educators maximize our students' opportunities to most effectively use their **ability to see** by recognizing that deaf students are primarily **visual learners**. What does this mean? It means: (a) that deaf students' primary way of acquiring and learning language is through their eyes; and (b) that deaf students receive and process, retain, and recall information best that is presented in a clear, congruent, and unambiguous visual format.

Thus, it is important that teachers understand the characteristics of natural sign languages that make them effective as visual-gestural languages for communication, and that teachers use these

characteristics in their communication with deaf students. In brief, whether a teacher is signing with or without voice, it is important that the teacher "think visually". For example, by being aware of and using the spatial characteristics of natural sign languages such as ASL, difficult spoken and/or written language structures can be clearly represented and explained.

To demonstrate the benefits of "thinking visually", the remainder of this presentation/paper provides examples of how one natural sign language, ASL, uses space, sign movement, indexing, body shifts, eye gaze and facial expression, together with sign selection based on meaning, to provide clear **visual** communication for the following concepts and language structures:

1. Appropriate pronoun usage/identification
2. Verb usage, with focus on active vs. passive voice
3. Semantics/meanings of individual terms or phrases
4. Dependent clause structures

Pronoun Usage

An effective message (written, spoken, or signed) cannot be produced if pronoun references are absent or used inconsistently. ASL specifies and discusses nouns by assigning them specific places in the signing space and then using handshapes which are produced in or towards these places as pronouns. These handshapes include: (a) index for third person pronouns (she, he, etc.), (b) palm-flat handshape for possessive pronouns (her, his, etc.), and (c) A-prime handshape for reflexive pronouns (herself, himself, etc.). Consistent use of these pronoun handshapes, space, and eye gaze enable signers to provide clear visual referencing to previously identified nouns, therefore maintaining visually congruent, unambiguous messages.

Example 1: While chatting with friends during lunch, I happened to see someone from Belgium. Her name is Britta, and she teaches at the university there. We attended Gallaudet together.

I called her over and introduced them.

For Example 1 above, the signer may shift her/his body to the right, produce 'chatting with friends,' then shift eye gaze to the left for 'someone from Belgium.' Then in 'calling her over and introducing them,' movement and eye gaze would be from left to right.

Example 2: Some deaf students attend residential schools, others are in mainstreamed settings. They are all visual learners.

For example 2, the signer may body shift and sign 'attend residential schools' to the left, body shift and sign 'others are in mainstreamed settings' to the right, and sweep index form right to left for 'they all.'

Example 3: A student in my class found the ring Jane lost. She said it was on her desk.

For example 3, the signer may sign 'student found' to the left and 'Jane lost' to the right. The 'she' and 'her' in the second sentence would be signed to the left or right to clearly show who was speaking and on whose desk the ring was found. Thus, if 'Jane was speaking' and the ring was on 'the student's desk,' Jane-index would be signed to the right and her-palm-flat would be signed to the left.

These examples demonstrate that, in addition to appropriate selection of sign language vocabulary, clear signed messages require teachers to consider the visual picture they provide students. Teachers need to ask themselves questions such as: (a) Am I clearly separating my production of nouns in space?; (b) Am I consistently referring back to these nouns by 'consistent' use of pronoun signs in space?; and (c) Do the movements of my verb signs match the location on my noun and pronoun signs, thus providing a clear visual picture of who or what is performing the action and who or what is receiving the action? Question #3 is addressed in more depth in the next section.

Verb Usage

ASL, and other naturally developed sign languages, effectively show the doers and receivers of actions (with complex verbs) and the place/location of actions (with locational verbs) by having the

direction and place of verb sign movements agree with their antecedents/noun and pronoun references.

Example 1: Billy hit Tommy. (who hit whom?)

Billy hit Tommy and ran away. (who ran away?)

Billy hit Tommy, and he ran away. (who ran away?)

Billy hit Tommy, and then he ran away. (who ran away?)

For these sentences the signer may place Billy to the right by use of a body shift, eye gaze, fingerspelling Billy, and then indexing, all to the right; then the signer may place Tommy to the left using the same sign language grammatical features. Once this use of spatial referencing has been established, verb movement location and directionality may then be used to show who is the doer of each action and who (if anyone) is the receiver.

Example 2: If the lab monitor assists you, he should sign your paper before you give it to me.

For this sentence, the signer may place the lab monitor to the right, then (a) sign assists from this location with the movement of assist to the person being signed to (you), (b) sign sign to the right in the location of the lab monitor, and then (c) sign give from the location of you (person being signed to) to her/himself (the signer).

Passive versus active voice, an especially problematic English structure for deaf students, is effectively communicated in ASL:

Example 3: Tommy kissed his mother

Tommy was kissed by his mother.

Tommy hit the ball.

Tommy was hit by the ball.

Using the same sign language grammatical features discussed for Examples 1 and 2 in this section, for Example 3 sentences who is being kissed and who/what is being hit can be shown by clear spatial

referencing and verb movement location and directionality.

Again, the examples in this section demonstrate the importance of the visual image/picture our signing provides. Verb sign movements need to be visually consistent with spatial placement of noun and pronoun signs.

Semantics of Individual Terms and Phrases

ASL grammatical features, together with sign selection/usage based on meaning, may be used to clarify phrase constructions and semantics of individual English words.

Example 1: The girl found a book on Main Street.

A. found a book which was lying on Main Street.

B. found a book while she was on Main Street.

C. found a book on (whose subject matter concerned) Main Street.

For sentence Example 1, space, indexing, eye gaze, and body shift, together with sign selection based on meaning, can be used to clarify the relationship and meaning of "on" for each of the possible meanings indicated by A, B, and C.

Example 2: Interested vs. Interesting

A. The teacher is interested in her students.

B. The teacher gives interesting lectures.

For Example 2, ASL has two separate signs to aid in clearly communicating the meaning of "interested" (two hands in forehead area move forward, changing from baby-C to baby-O handshapes) and "interesting" (8-handshapes, thumbs and middle fingers not touching, move forward from chest area, closing to thumbs and middle fingers in contact). Again, use of these signs (based on meaning) with grammatically correct use of space etc. can clearly communicate the information in these two sentences; that is, (a) for sentence A the sign "interested" would include eye gaze and sign movement from one

space/location for the "teacher" to another space/location for "students," with "her" produced in the "teacher" location, and (b) for sentence B similar strategies would be used to show the "teacher gives" and "interesting lectures."

Example 3: Indefinite versus Definite Articles

A. The student found a ring.

B. The student found the ring.

For Example 3, eye gaze and indexing are especially important. For sentence A the signer will generally maintain eye contact with the person(s) being signed to throughout the sentence, with the sign "ring" produced in neutral space, thus communicating the concept of the indefinite "a" ring. For sentence B the signer would shift eye gaze to a specific location/space, produce the sign "ring" in this location, and then index/point to this location in order to communicate the concept of a definite/specific ring; that is, 'the' ring.

Dependent Clauses

ASL also uses space/referencing, facial grammar, and accurate sign selection based on meaning to show relationships and message intent in complex sentences such as:

Example 1: Some of the students who were involved in planning the program will attend the conference. Who will select them?

Example 2: When you've completed the rough sketches, you can begin the designs? When do you expect to complete the project?

Example 3: You need a term which matches the meaning of the formula. Which one should you choose?

Example 4: I brushed my teeth before I ate breakfast.

I ate breakfast after I brushed my teeth.

Before I brushed my teeth, I ate breakfast.

After I ate breakfast, I brushed my teeth.

During our congress presentation these four examples were demonstrated and explained. We have included them in this/our written paper to stress the power of ASL, as a natural sign language, to clearly communicate complex ideas/sentences. Unfortunately, explaining these examples in print would require extensive writing. We hope that our explanations for previous examples in this paper have provided readers with a "feel and appreciation" for the importance of we educators **thinking visually**. Using this feeling and appreciation, the sign language grammatical features discussed in this paper, and collaborative efforts with our deaf and hearing colleagues who are highly skilled signers, we encourage you to maximize use of your ability to think visually in order to produce sign language that clearly communicates complex sentences/ideas such as the examples in this section.

Summary and Conclusion

This presentation/paper has (a) stressed the importance of teachers 'thinking visually,' and (b) provided examples of structural/grammatical features of American Sign Language (ASL) in order to show how natural sign languages convey information in a visually clear manner. Teachers thinking visually and using the structural/grammatical features of natural sign languages can facilitate deaf students' understanding of information presented in the classroom, enhance classroom discussion, and help to model and explain difficult language structures. Thinking visually allows teachers to focus on the **ability** of deaf students to **see**. Thus, thinking of our students as **visual learners** provides an opportunity to open not only the minds of our students to learning, but also the minds of we teachers as we strive to enhance the learning of our students within a **visually** rich environment.

Reference

Behan, B. (1988). Deaf culture is link to mainstream. Keynote Address, 11th Convention of the American Society for Deaf Children; printed in The Endeavor, July-August, 1.

Caccamise_F_PB002.WPC
10/18/95:dmr